

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently amended) A method that facilitates dynamic delivery of
2 service profiles to a client, comprising:
3 performing a discovery operation to allow the client to discover new
4 services on a network;
5 if a new service is discovered for which the client does not possess a
6 service profile for the new service, causing the client to obtain the service profile
7 from the new service;
8 wherein causing the client to obtain the service profile involves:
9 causing the client to send a request for the service profile to the
10 new service, wherein the request includes type information identifying the
11 type of device platform of the client; and
12 causing the new service to select the service profile based on the
13 received type information; and
14 causing the service profile to be installed on the client to enable the client
15 to use the new service,
16 wherein the service profile includes a specification that describes how to
17 use the new service, and wherein causing the service profile to be installed on the
18 client involves,
19 causing device-specific code to be generated to implement the
20 specification, and
21 causing the code to be installed on the client.

1 2. (Original) The method of claim 1, wherein causing the client to
2 obtain the service profile involves:

3 causing the client to send a request for the service profile to the new
4 service; and

5 causing the client to receive the service profile from the new service.

1 3. (Original) The method of claim 1, wherein the service profile
2 includes code, and wherein causing the service profile to be installed on the client
3 involves causing the code to be installed on the client.

1 4. (Cancelled)

1 5. (Original) The method of claim 1, wherein the service profile is
2 encoded in a universal form that can be executed by different types of clients.

1 6. (Original) The method of claim 1,
2 wherein there exist different service profile implementations for different
3 types of clients; and

4 wherein causing the client to obtain the service profile involves,

5 communicating characteristics of the client to the new
6 service,

7 allowing the new service to select a service profile
8 implementation for the client based on the characteristics of the
9 client, and

10 allowing the new service to send the selected service profile
11 implementation to the client.

1 7. (Original) The method of claim 1, wherein causing the client to
2 obtain the service profile from the new service involves executing a dynamic
3 extension profile, which implements a standard protocol that enables the client to
4 acquire any profile the client needs at the time the profile is needed.

1 8. (Original) The method of claim 1,
2 wherein performing the discovery operation involves using the Bluetooth
3 Service Discovery Protocol (SDP); and
4 wherein the client and the new service communicate using the Bluetooth
5 networking standard.

1 9. (Original) The method of claim 1, wherein the service profile can
2 define a service-specific Application Programming Interface (API).

1 10. (Original) The method of claim 1, wherein the service profile
2 implements a domain-specific protocol stack associated with the new service.

1 11. (Currently amended) A computer-readable storage medium storing
2 instructions that when executed by a computer cause the computer to perform a
3 method that facilitates dynamic delivery of service profiles to a client, the method
4 comprising:

5 performing a discovery operation to allow the client to discover new
6 services on a network;

7 if a new service is discovered for which the client does not possess a
8 service profile for the new service, causing the client to obtain the service profile
9 from the new service;

10 wherein causing the client to obtain the service profile involves:

11 causing the client to send a request for the service profile to the
12 new service, wherein the request includes type information identifying the
13 type of device platform of the client; and
14 causing the new service to select the service profile based on the
15 received type information; and
16 causing the service profile to be installed on the client to enable the client
17 to use the new service,
18 wherein the service profile includes a specification that describes how to
19 use the new service, and wherein causing the service profile to be installed on the
20 client involves,
21 causing device-specific code to be generated to implement the
22 specification, and
23 causing the code to be installed on the client.

1 12. (Original) The computer-readable storage medium of claim 11,
2 wherein causing the client to obtain the service profile involves:
3 causing the client to send a request for the service profile to the new
4 service; and
5 causing the client to receive the service profile from the new service.

1 13. (Original) The computer-readable storage medium of claim 11,
2 wherein the service profile includes code, and wherein causing the service profile
3 to be installed on the client involves causing the code to be installed on the client.

1 14. (Cancelled)

1 15. (Original) The computer-readable storage medium of claim 11,
2 wherein the service profile is encoded in a universal form that can be executed by
3 different types of clients.

1 16. (Original) The computer-readable storage medium of claim 11,
2 wherein there exist different service profile implementations for different
3 types of clients; and
4 wherein causing the client to obtain the service profile involves,
5 communicating characteristics of the client to the new
6 service,
7 allowing the new service to select a service profile
8 implementation for the client based on the characteristics of the
9 client, and
10 allowing the new service to send the selected service profile
11 implementation to the client.

1 17. (Original) The computer-readable storage medium of claim 11,
2 wherein causing the client to obtain the service profile from the new service
3 involves executing a dynamic extension profile, which implements a standard
4 protocol that enables the client to acquire any profile the client needs at the time
5 the profile is needed.

1 18. (Original) The computer-readable storage medium of claim 11,
2 wherein performing the discovery operation involves using the Bluetooth
3 Service Discovery Protocol (SDP); and
4 wherein the client and the new service communicate using the Bluetooth
5 networking standard.

1 19. (Original) The computer-readable storage medium of claim 11,
2 wherein the service profile can define a service-specific Application Programming
3 Interface (API).

1 20. (Original) The computer-readable storage medium of claim 11,
2 wherein the service profile implements a domain-specific protocol stack
3 associated with the new service.

1 21. (Currently amended) An apparatus that facilitates dynamic delivery
2 of service profiles to a client, comprising:

3 a discovery mechanism configured to perform a discovery operation that
4 allows the client to discover new services on a network;

5 a profile transfer mechanism, wherein if a new service is discovered for
6 which the client does not possess a service profile for the new service, the profile
7 transfer mechanism is configured to cause the service profile to be transferred
8 from the new service to the client;

9 wherein causing the client to obtain the service profile involves:

10 causing the client to send a request for the service profile to the
11 new service, wherein the request includes type information identifying the
12 type of device platform of the client; and

13 causing the new service to select the service profile based on the
14 received type information; and

15 an installation mechanism configured to cause the service profile to be
16 installed on the client to enable the client to use the new service,

17 wherein the service profile includes a specification that describes how to
18 use the new service, and wherein the installation mechanism is configured to,

19 cause device-specific code to be generated to implement the
20 specification, and

21 cause the code to be installed on the client.

1 22. (Original) The apparatus of claim 21, wherein the profile transfer
2 mechanism is configured to:

3 cause the client to send a request for the service profile to the new service;
4 and to

5 cause the client to receive the service profile from the new service.

1 23. (Original) The apparatus of claim 21, wherein the service profile
2 includes code, and wherein the installation mechanism is configured to cause the
3 code to be installed on the client.

1 24. (Cancelled)

1 25. (Original) The apparatus of claim 21, wherein the service profile is
2 encoded in a universal form that can be executed by different types of clients.

1 26. (Original) The apparatus of claim 21,
2 wherein there exist different service profile implementations for different
3 types of clients; and

4 wherein the profile transfer mechanism is configured to,

5 communicate characteristics of the client to the new
6 service,

7 allow the new service to select a service profile
8 implementation for the client based on the characteristics of the
9 client, and to

10 allow the new service to send the selected service profile
11 implementation to the client.

1 27. (Original) The apparatus of claim 21, wherein the profile transfer
2 mechanism is configured to execute a dynamic extension profile, which
3 implements a standard protocol that enables the client to acquire any profile the
4 client needs at the time the profile is needed.

1 28. (Original) The apparatus of claim 21,
2 wherein the discovery mechanism uses the Bluetooth Service Discovery
3 Protocol (SDP); and
4 wherein the client and the new service communicate using the Bluetooth
5 networking standard.

1 29. (Original) The apparatus of claim 21, wherein the service profile
2 can define a service-specific Application Programming Interface (API).

1 30. (Original) The apparatus of claim 21, wherein the service profile
2 implements a domain-specific protocol stack associated with the new service.

1 31. (Currently amended) A device configured to dynamically deliver a
2 service profile to a client to enable the client to use a service provided by the
3 device, comprising:
4 the device configured to provide the service;
5 a memory within the device containing the service profile that enables
6 clients to use the service provided by the device;
7 a service profile obtaining mechanism configured to cause the client to
8 obtain the service profile by:

9 causing the client to send a request for the service profile to the
10 new service, wherein the request includes type information identifying the
11 type of device platform of the client; and
12 causing the new service to select the service profile based on the
13 received type information; and
14 a profile transfer mechanism configured to transfer the service profile to
15 the client on demand,
16 wherein the service profile includes a specification that describes how to
17 use the new service, and wherein causing the service profile to be installed on the
18 client involves,
19 causing device-specific code to be generated to implement the
20 specification, and
21 causing the code to be installed on the client.

1 32. (Original) The device of claim 31, further comprising a discovery
2 mechanism configured to perform a discovery operation that allows devices to
3 discover each other.